

IN THE CLAIMS:

Please cancel claims 1-21 without prejudice or disclaimer, and add new claims 22-54 as follows:

1-21. (Cancelled)

22. (New) A crystal growing method comprising the steps of:

forming a step-terrace structure on a SiC surface and then removing an oxide film on the surface; and

performing at least one cycle of a process of irradiation of Si or Ga and then heating, and then growing a Group-III nitride.

23. (New) The crystal growing method according to claim 22, wherein the step of irradiation of Si or Ga is performed under high vacuum.

24. (New) The crystal growing method according to claim 22, wherein the high vacuum is 10^{-6} Pa or less.

25. (New) The crystal growing method according to any one of claim 22, wherein the step of growing a Group-III nitride is performed at a temperature lower than the temperature of the substrate during the heating step.

26. (New) The crystal growing method according to any one of claim 22, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001) Si or (000—1) C plane.

27. (New) A crystal growing method comprising the steps of:

forming a flat and clean SiC surface; and

growing a Group-III nitride, wherein nitrogen is fed after a Group III element has been fed.

28. (New) A crystal growing method comprising the steps of:

removing an oxide film from the surface and forming a flat and clean SiC surface; and

growing a Group-III nitride, wherein nitrogen is fed after a Group III element of an amount corresponding to a single monolayer or of a smaller amount has been fed to said clean SiC surface.

29. (New) The crystal growing method according to claim 27, wherein the step of growing said Group-III nitride is performed under high vacuum.
30. (New) The crystal growing method according to claim 29, wherein the high vacuum is 10^{-2} Pa or less.
31. (New) The crystal growing method according to claim 28, wherein the step of growing said Group-III nitride is performed under high vacuum.
32. (New) The crystal growing method according to claim 31, wherein the high vacuum is 10^{-2} Pa or less.
33. (New) The crystal growing method according to any one of claim 27, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001) Si or (000—1) C plane.
34. (New) The crystal growing method according to any one of claim 28, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001) Si or (000—1) C plane.
35. (New) A crystal growing method comprising the steps of:
 - forming a flat and clean SiC surface;
 - growing a Group-III nitride, wherein a surface control element for controlling the mode of crystal growth of said Group-III nitride on the SiC surface is fed first; and
 - feeding a Group III element and nitrogen; followed by the termination of the feeding of said surface control element.
36. (New) The crystal growing method according to claim 35, wherein said surface controlling element is Ga or In.

37. (New) The crystal growing method according to claim 35, wherein the step of growing the Group-III nitride is performed under high vacuum.
38. (New) The crystal growing method according to claim 37, wherein said high vacuum is 10^{-2} Pa or less.
39. (New) The crystal growing method according to any one of claim 35, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001) Si or (000-1) C plane.
40. (New) A crystal growing method comprising the steps of:
controlling the SiC surface to acquire a step-terrace structure; and
removing an oxide film on the surface in an atmosphere of reduced oxygen partial pressure and growing a Group-III nitride.
41. (New) A crystal growing method comprising the steps of
controlling the SiC surface to acquire a step-terrace structure; and
removing an oxide film on the surface in an atmosphere of reduced oxygen partial pressure and growing a Group-III nitride while the step-terrace structure is maintained.
42. (New) The crystal growing method according to claim 40, wherein the step of growing said Group-III nitride is performed under high vacuum.
43. (New) The crystal growing method according to claim 42, wherein said high vacuum is 10^{-2} Pa or less.
44. (New) The crystal growing method according to claim 41, wherein the step of growing said Group-III nitride is performed under high vacuum.
45. (New) The crystal growing method according to claim 42, wherein said high vacuum is 10^{-2} Pa or less.
46. (New) The crystal growing method according to any one of claim 41, wherein the step

of removing an oxide film on the surface is performed using a solution containing fluorine.

47. (New) The crystal growing method according to any one of claim 41, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001) Si or (000-1) C plane.
48. (New) A stacked structure comprising:
 - a SiC layer;
 - a Group-III nitride layer; and
 - Ga atoms or In atoms remaining between said SiC layer and said Group-III nitride layer.
49. (New) A stacked structure comprising:
 - a SiC layer;
 - an AlN layer; and
 - Ga atoms or In atoms on the ppm order remaining between said SiC layer and said AlN layer.
50. (New) The crystal growing method according to claim 47, comprising the steps of:
 - forming a step-terrace structure on said SiC surface and removing an oxide film on said surface; and
 - removing an oxide film on said surface and forming a flat and clean SiC surface,
 - wherein the step of growing a Group-III nitride comprises the step of feeding nitrogen after the Group III element has been fed.
51. (New) The crystal growing method according to claim 47, comprising:
 - removing an oxide film on said surface and forming a flat and clean SiC surface,
 - wherein the step of growing a Group-III nitride under high vacuum comprises the steps of:
 - feeding a surface controlling element for controlling the mode of crystal growth of the Group-III nitride on said SiC surface first; and

feeding a Group III element and nitrogen, followed by the termination of the feeding of said surface controlling element.

52. (New) The crystal growing method according to claim 47, wherein the step of removing the oxide film comprises the step of removing the oxide film on the surface using a solution containing fluorine in an atmosphere of reduced oxygen partial pressure, and then growing the Group-III nitride.
53. (New) A heterojunction MISFET comprising:
a SiC substrate;
an AlN layer formed by forming a step-terrace structure on a SiC surface and then removing an oxide film on the surface, performing at least one cycle of a process of irradiation of Si or Ga and then heating, and growing a Group-III nitride;
a gate electrode formed on said AlN layer; and
a source and a drain formed on either side of said gate electrode.
54. (New) A heterojunction laser device comprising:
a SiC substrate;
an MN buffer layer formed by forming a step-terrace structure on a SiC surface and then removing an oxide film on the surface, performing at least one cycle of a process of irradiation of Si or Ga and then heating, and growing a Group-III nitride;
a first AlGaIn cladding layer formed on said AlN layer;
a GaN/InGaIn multiquantum well structure; and
a second AlGaIn cladding layer formed on said multiquantum well structure.